Amendments to the Specification

Please amend the paragraph starting on page 19, line 21, as follows:

The phosphine groups preferably contain two identical or different, preferably identical unsubstituted or substituted hydrocarbon radicals with 1 to 20, preferably 1 to 12 carbon atoms. Of the ditertiary diphosphines the ones that are especially preferred are those in which the two phosphine groups are two identical or different radicals selected from the group comprising linear or branched C_1-C_{12} alkyl; C_5-C_{12} cycloalkyl, C_5-C_{12} cycloalkyl-CH_2-, phenyl or benzyl, unsubstituted or substituted with C_1-C_6 alkyl or C_1-C_6 alkoxy; or contain phenyl or benzyl substituted with halogen (for example F, Cl and Br), C_1-C_6 alkyl, C_1-C_6 haloalkyl (for example trifluoromethyl), C_1-C_6 alkoxy, C_1-C_6 haloalkoxy (for example trifluoromethoxy), $(C_6H_5)_3Si$, (C_1-C_{12} alkyl)$_3$Si, -NH_2, -NH(C_1-C_{12} alkyl), -NH(phenyl), -NH(benzyl), -N(C_1-C_{12} alkyl)$_2$, -N (phenyl)$_2$, -N(benzyl)$_2$, morpholinyl, piperidinyl, pyrrolidinyl, piperazinyl, -ammonium-X_3-, -SO_3M_1, -CO_2M_1, -$PO_3(M_1)_2$ ~~$-PO_3M_1$~~, or -CO_2-C_1-C_6 alkyl (for example -CO_2CH_3), where M_1 represents an alkali metal or hydrogen, and X_3^- is the anion of a monobasic acid. M_1 preferably stands for H, Li, Na and K. X_3^- represents the anion of a monobasic acid, preferably Cl^-, Br^-, or the anion of a monocarboxylic acid, for example formiate, acetate, trichloroacetate or trifluoroacetate.

Please amend the paragraph starting on page 21, line 10, as follows:

The diphosphines preferably satisfy formula IV,

$$R_4R_5P\text{-}R_6\text{-}PR_7R_8 \qquad \text{(IV)},$$

in which

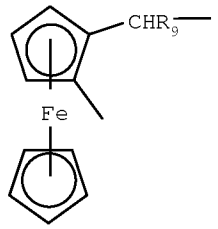
R_4, R_5, R_7 and R_8 independently of one another represent a hydrocarbon radical with 1 to 20 carbon atoms which are unsubstituted or substituted with halogen, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkoxy, $(C_6H_5)_3Si$, $(C_1$-C_{12}-alkyl$)_3Si$, $-NH_2$, -NH(C_1-C_{12}-alkyl), -NH(phenyl), -NH(benzyl), -N(C_1-C_{12}-alkyl$)_2$, -N (phenyl$)_2$, -N(benzyl$)_2$, morpholinyl, piperidinyl, pyrrolidinyl, piperazinyl,

-ammonium-X_3-, $-SO_3M_1$, $-CO_2M_1$, $-PO_3(M_1)_2$ ~~$-PO_3M_1$~~, or $-CO_2$-C_1-C_6-alkyl, where M_1 represents an alkali metal or hydrogen, and X_3^- is the anion of a monobasic acid; or R_4 and R_5 and R_7 and R_8 respectively together denote tetramethylene, pentamethylene or 3-oxa-pentane-1,5-diyl, unsubstituted or substituted with halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy, and

R_6 is C_2-C_4-alkylene, unsubstituted or substituted with C_1-C_6-alkyl, C_1-C_6-alkoxy, C_5-cycloalkyl or C_6-cycloalkyl, phenyl, naphthyl or benzyl; 1,2- or 1,3-cycloalkylene, 1,2- or 1,3-cycloalkenylene, 1,2- or 1,3-bicycloalkylene or 1,2- or 1,3-bicycloalkenylene with 4 to 10 carbon atoms, unsubstituted or substituted with C_1-C_6-alkyl, phenyl or benzyl; 1,2- or 1,3-cycloalkylene, 1,2- or 1,3-cycloalkenylene, 1,2- or 1,3-bicycloalkylene or 1,2- or 1,3-bicycloalkenylene with 4 to 10 carbon atoms, unsubstituted or substituted with C_1-C_6-alkyl, phenyl or benzyl, and attached at whose 1- and/or 2-position(s) or at whose 3-position is methylene or C_2-C_4-alkylidene; 1,4-butylene, substituted in the 2,3-positions with $R_9R_{10}C(O-)_2$, and in the 1- and/or 4-positions unsubstituted or substituted with C_1-C_6-alkyl, phenyl or benzyl, and where R_9 and R_{10} independently of one another represent hydrogen, C_1-C_6-alkyl, phenyl or benzyl; 3,4- or 2,4-pyrrolidinylene or methylene-4-pyrrolidine-4-yl, the N-Atom of which is substituted with hydrogen, C_1-C_{12}-alkyl, phenyl, benzyl, C_1-C_{12}-alkoxycarbonyl, C_1-C_8-acyl, C_1-C_{12}-alkylamino

carbonyl; or 1,2-phenylene, 2-benzylene, 1,2-xylylene, 1,8-naphthylene, 2,2'-dinaphthylene or 2,2'-diphenylene, unsubstituted or substituted with halogen,

-OH, C_1-C_6-alkyl, C_1-C_6-alkoxy, phenyl, benzyl, phenyloxy or benzyloxy; or R_6 stands for a radical of the formulas



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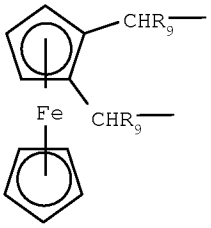

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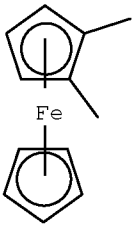

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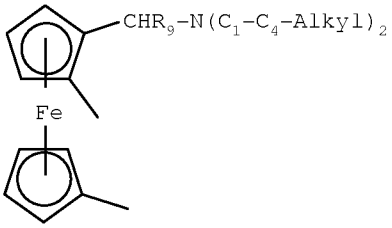

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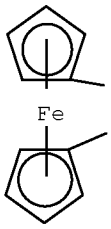

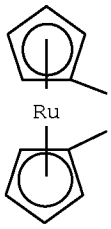

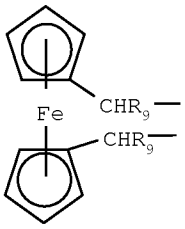

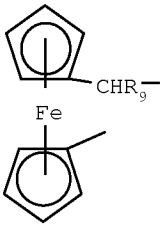

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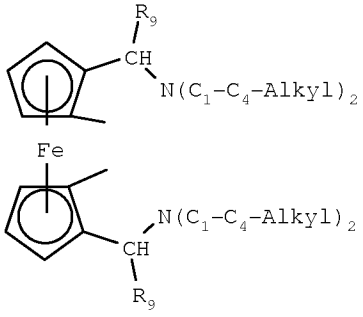

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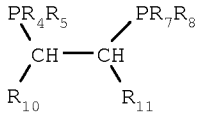
in which R_9 denotes hydrogen, C_1-C_8-alkyl, C_1-C_4-fluoroalkyl, unsubstituted phenyl or phenyl substituted with 1 to 3 F, Cl, Br, C_1-C_4-alkyl, C_1-C_4-alkoxy or fluoromethyl.

Please amend the paragraph starting on page 23, line 25, as follows:

A preferred group of achiral and chiral diphosphines are those of formulas V to (XVII) and (XIX) to XXIII,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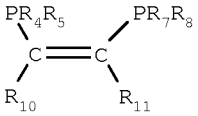
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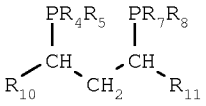
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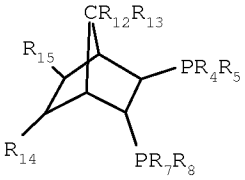
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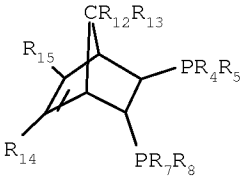
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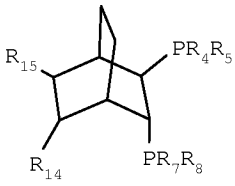
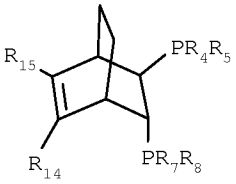
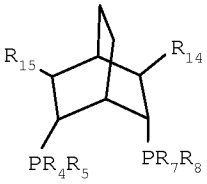

(X),


, (XI)

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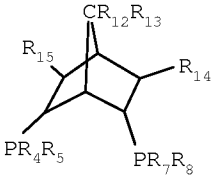
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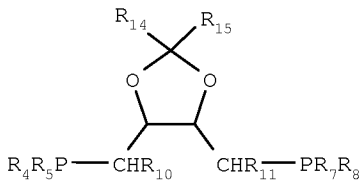

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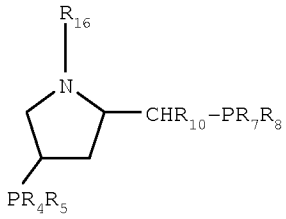

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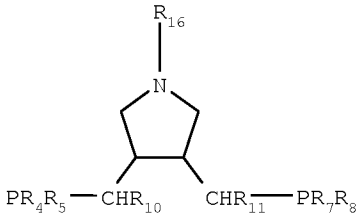

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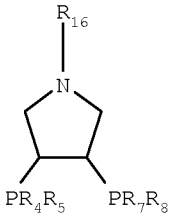

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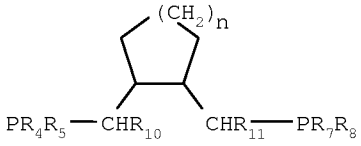

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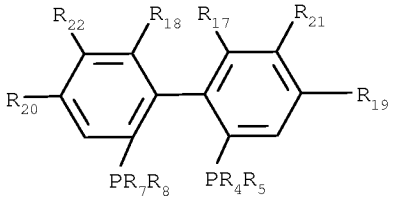
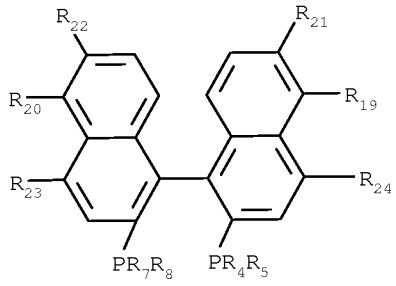


(XX),



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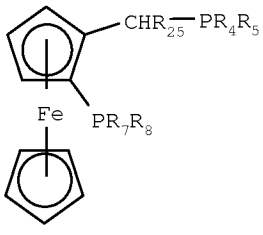

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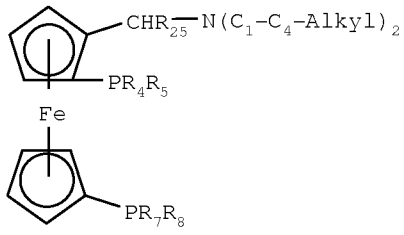


(XXIII),

in which R_4, R_5 R_7 and R_8 have the meanings stated earlier, including the preferences,

R_{10} and R_{11} independently of one another denote hydrogen, C_1-C_4 alkyl or benzyl or phenyl, unsubstituted or substituted with one to three C_1-C_4 alkyl or C_1-C_4 alkoxy,

R_{12} and R_{13} independently of one another represent hydrogen, C_1-C_4 alkyl, phenyl or benzyl,

R_{14} and R_{15} independently of one another denote hydrogen, C_1-C_4 alkyl, C_1-C_4 alkoxy, or benzyl or phenyl, unsubstituted or substituted with one to three C_1-C_4 alkyl or C_1-C_4 alkoxy,

R_{16} represents hydrogen, C_1-C_{12} alkyl, unsubstituted benzyl or phenyl, or benzyl or phenyl substituted with one to three C_1-C_4 alkyl or C_1-C_4 alkoxy, C_1-C_{12} alkoxy-C(O)-, unsubstituted phenyl-C(O)- or benzyl-C(O)-, or phenyl-C(O)- or benzyl-C(O)- substituted with one to three C_1-C_4 alkyl or C_1-C_4 alkoxy, C_1-C_{12} alkyl-NH-CO-, or phenyl-NH-C(O)- or benzyl-NH-C(O)-, unsubstituted or substituted with one to three C_1-C_4 alkyl or C_1-C_4 alkoxy,

n stands for 0, 1 or 2,

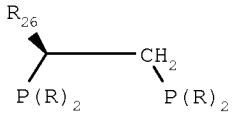
R_{17} and R_{18} are C_1-C_4 alkyl or C_1-C_4 alkoxy, or R_{17} and R_{18} together denote oxadimethylene,

R_{19}, R_{20}, $\underline{R_{21}}$ ~~R_21~~, R_{22}, R_{23} and R_{24} are independently of one another H, C_1-C_4 alkyl, C_1-C_4 alkoxy, C_5- or C_6 cycloalkyl or C_5- or C_6 cycloalkoxy, phenyl, benzyl, phenoxy, benzyloxy, halogen, OH, -$(CH_2)_3$-C(O)-O-C_1-C_4-alkyl, -$(CH_2)_3$-C(O)-N(C_1-C_4-alkyl)$_2$ or -N(C_1-C_4-alkyl)$_2$, or R_{19} and R_{21}, and/or R_{17} and R_{21}, and/or R_{20} and R_{22}, and/or R_{18} and R_{22}, or R_{21} and R_{23} and/or R_{22} and R_{24} respectively together represent a fused-on 5 or 6-membered, monocyclic or bicyclic hydrocarbon ring, and

R_{25} is C_1-C_4 alkyl.

Please amend the paragraph starting on page 26, line 9, as follows:

Some preferred examples of chiral ditertiary diphosphines are those of the following formulas V to XL:



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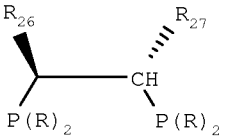

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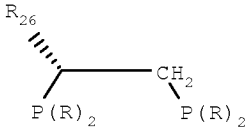

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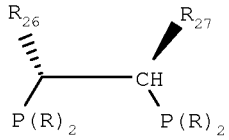

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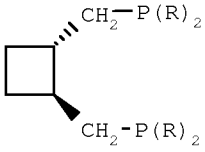

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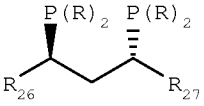
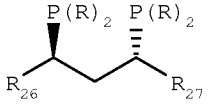


(XXIX) ~~(XIX)~~,



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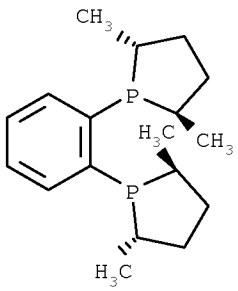

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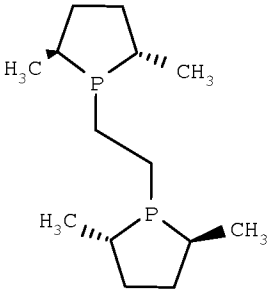

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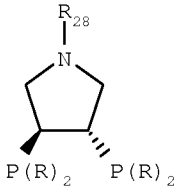

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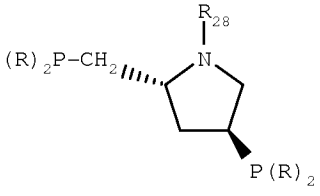

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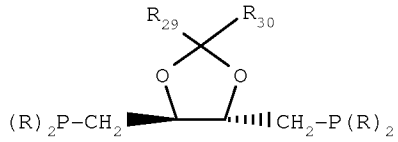

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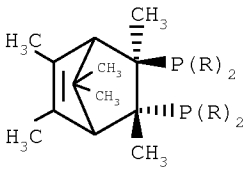

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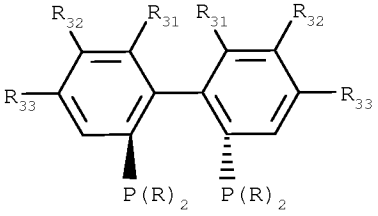
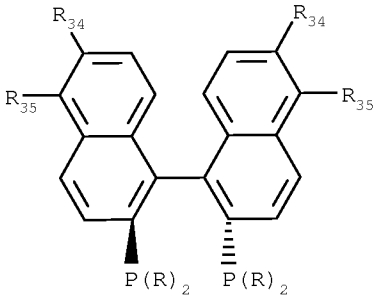


(XXXVII),



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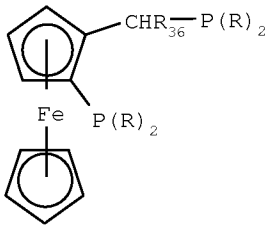

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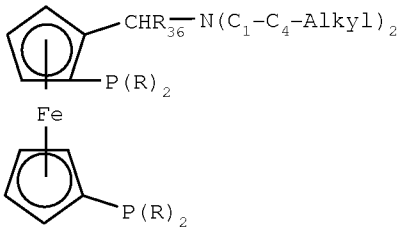


(XL),

in which

R stands for cyclohexyl or unsubstituted phenyl or phenyl substituted with one to three C_1-C_4-alkyl, C_1-C_4-alkoxy, trifluoromethyl, or an $-NH_2$ (C_1-C_4-alkyl)NH-, (C_1-C_4-alkyl)$_2$N-,

R_{26} and R_{27} independently of one another denote C_1-C_4-alkyl, phenyl or benzyl and most preferably methyl,

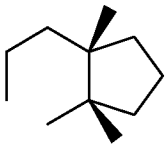
R_{28} represents C_1-C_8-alkyl, C_1-C_8-acyl or C_1-C_8-alkoxycarbonyl,

R_{29} stands for hydrogen or independently has the meaning of R_{30}, and R_{30} represents C_1-C_4-alkyl, phenyl or benzyl,

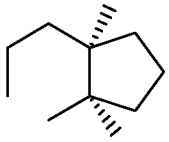
R_{31} denotes methyl, methoxy, or both R_{31} together denote oxadimethylene,

R_{32} and R_{33} independently of one another represent H, C_1-C_4-alkyl, C_1-C_4-alkoxy or (C_1-C_4-alkyl)$_2$N-,

R_{34} and R_{35} independently of one another represent H, C_1-C_4-alkyl, C_1-C_4-alkoxy, -$(CH_2)_3$-C(O)-O-C_1-C_4-alkyl, -$(CH_2)_3$-C(O)-N(C_1-C_4-alkyl)$_2$ or one pair R_{34} and R_{35} together represents a radical of formula XLI and the other pair R_{34} and R_{35} together represents a radical of formula XLII



(XLI),



(XLII),

and

R_{36} stands for C_1-C_4-alkyl and most preferably methyl.